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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/618,931

07/14/2003

Stephen G. Perlman

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08/07/2008

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EXAMINER

MILLS, DONALD L

ART UNIT

PAPER NUMBER

2616

MAIL DATE

DELIVERY MODE

08/07/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/618,931	<b>Applicant(s)</b> PERLMAN, STEPHEN G.	
	<b>Examiner</b> DONALD L. MILLS	<b>Art Unit</b> 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 45-72 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 45-72 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>02/11/2008</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The declaration filed on 31 March 2008 under 37 CFR 1.131 has been considered but is ineffective to overcome the Lau (US 2004/0125820 A1) reference.
2. The evidence submitted is insufficient to establish a reduction to practice of the invention in this country or a NAFTA or WTO member country prior to the effective date of the Lau (US 2004/0125820) reference.

The Applicant has failed to adequately demonstrate through a showing of facts a reduction to practice in light of the following statements (Note, the Applicant did not even assert a reduction to practice). Although the Applicant has shown concept of the invention as provided in exhibits 1-6, they have not asserted any such statements in relation to a reduction to practice or due diligence.

The affidavit or declaration must state FACTS and produce such documentary evidence and exhibits in support thereof as are available to show conception and completion of invention in this country or in a NAFTA or WTO member country (MPEP § 715.07(c)), at least the conception being at a date prior to the effective date of the reference. Where there has not been reduction to practice prior to the date of the reference, the applicant or patent owner must also show diligence in the completion of his or her invention from a time just prior to the date of the reference continuously up to the date of an actual reduction to practice or up to the date of filing his or her application (filing constitutes a constructive reduction to practice, 37 CFR 1.131). As

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discussed above, 37 CFR 1.131(b) provides three ways in which an applicant can establish prior invention of the claimed subject matter. The showing of facts must be sufficient to show:

(A) > (actual) < reduction to practice of the invention prior to the effective date of the reference; or

(B) conception of the invention prior to the effective date of the reference coupled with due diligence from prior to the reference date to a subsequent (actual) reduction to practice; or

(C) conception of the invention prior to the effective date of the reference coupled with due diligence from prior to the reference date to the filing date of the application (constructive reduction to practice).

A conception of an invention, though evidenced by disclosure, drawings, and even a model, is not a complete invention under the patent laws, and confers no rights on an inventor, and has no effect on a subsequently granted patent to another, UNLESS THE INVENTOR FOLLOWS IT WITH REASONABLE DILIGENCE BY SOME OTHER ACT, such as an actual reduction to practice or filing an application for a patent. *Automatic Weighing Mach. Co. v. Pneumatic Scale Corp.*, 166 F.2d 288, 1909 C.D. 498, 139 O.G. 991 (1st Cir. 1909).

The showing of facts shall be such, in character and weight, as to establish reduction to practice prior to the effective date of the reference, or conception of the invention prior to the effective date of the reference coupled with due diligence from prior to said date to a subsequent reduction to practice or to the filing of the application. Original exhibits of drawings or records, or photocopies thereof, must accompany and form part of the affidavit or declaration or their absence must be satisfactorily explained. In addition, one should note that a declaration by the inventor to the effect that his or her invention was conceived or reduced to practice prior to the

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reference date, without a statement of facts demonstrating the correctness of this conclusion, is insufficient to satisfy 37 CFR 1.131. Also, vague and general statements in broad terms about what the exhibits describe along with a general assertion that the exhibits describe a reduction to practice “amounts essentially to mere pleading, unsupported by proof or a showing of facts” and, thus, does not satisfy the requirements of 37 CFR 1.131(b). In re Borkowski, 505 F.2d 713, 184 USPQ 29 (CCPA 1974).

However, the Examiner presents new grounds of rejection in light of Lau et al. (US 6,690,657) and Heinonen et al. (US 6,968,153 B1) to further expedite prosecution.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 45-72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lau et al. (US 6,690,657), hereinafter referred to as Lau, in view of Heinonen et al. (US 6,968,153 B1), hereinafter referred to as Heinonen.

Regarding claim 45-72, Lau discloses a multi-channel distributed wireless repeater network, which comprises:

*A first transceiver operable to receive data transmitted on a first channel of a first frequency band; a second transceiver coupled to the first transceiver, the second transceiver*

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*operable to transmit data on a second channel of the first frequency band* (Note, the Examiner interprets the claims as relating to a system in which data packets are wirelessly repeated from one access point to another access point via the same frequency band but on a different corresponding channel. Referring to Figure 4, base station **60** (wireless router) transmits, via a first transceiver **62** via CH1, to repeater **78** (comprising a first transceiver and second transceiver, with corresponding ability to transmit and receive independently according to frequency programmability), which forwards the data via CH2 to T/R module **80**. See column 5, lines 39-46. Referring to Figure 3, the low-power transceivers can be used to create a robust network that can extend beyond each transceiver's useful range. In this manner, the data is transmitted at a data rate on a channel that does not interfere with any device simultaneously transmitting within an interference range of the base station. Using channel-shifting RF repeaters, thereby preferably providing more uniform radio coverage within a desired coverage, via RF networks comprising the 802.11 format and Bluetooth<sup>TM</sup> format. See column 2, lines 8-24; column 4, lines 41-45; and column 10, lines 38-39. When a given transmitter is transmitting, repeaters in range of that transmitter receives the signal, channel-shifts the signal, and retransmits it. If the network is large enough, other repeaters may pick up the channel-shifted signal from the first repeaters, shift it to yet another channel, and retransmit it again. See column 4, lines 6-27. The system is suitable for household use, office use, and other environments with similarly limited network extent. See column 4, lines 49-51. Referring to Figure 3, as seen in a building floor plan that would correspond to a home office, the repeaters are within the maximum bandwidth transmission range per the requisite wireless transmission standard. More specifically, referring to Figures 3, 6, and 7, the wireless local area network **58** comprises multiple transmit/receive

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modules **62, 64, 70, 74, and 80** (media receiver with a display device), a base station **60**, and repeaters **68 and 78**. See column 5, lines 10-15. Repeaters **68 and 78** (programmable) can receive signals on both **CH1** and **CH2**, and have the capability to retransmit a signal received on **CH1** on **CH2**, and a signal received on **CH2** on **CH3**. See column 5, lines 59-65. Also, referring to Figure 13, the substantially non-interfering channels utilizes time slots in sequential order, each logically equivalent according to TDM traditional protocol. See column 7, lines 29-36. In addition, in some networks, it may be desirable to have a repeater “re-use” a channel, if that channel does not overlap coverage areas with the original user of CH1 and its recipients. See column 6, lines 25-28.)

Lau does not disclose *a third transceiver coupled to the first and second transceivers, the third transceiver operable to transmit and receive data in a second frequency band.*

Note, the Examiner interprets the claim limitations as relating to the process of extending a wireless LAN through multi-protocol transceivers operating in different frequency bands, as taught in Figure 1C of Heinonen. More specifically, Heinonen teaches an apparatus, method and system for a Bluetooth<sup>TM</sup> repeater, which comprises pairing the transceiver with an IEEE 802.11a (first frequency band, 5GHz), b (second frequency band, 2.4 GHz) and g transceiver to extend the radius the of repeaters range (Referring to Figure 1C, see column 4, lines 4-21.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the multiprotocol transceivers of Heinonen in the channel shifting RF repeaters of Lau. One of ordinary skill in the art at the time of the invention would have been motivated to do so in order to provide bandwidth adequate for multimedia over an expanded infrastructure backbone, for transmission distances beyond the capability of 802.11b, that supports high-data-

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rate universal radio interfaces, which comply with the well-known standard of IEEE 802.11a, for almost any type of data as taught by Lau (See column 3, lines 14-27 and column 4, lines 41-52.)

An added benefit of doing so would extend network coverage with a well-known standard of which many consumer electronics comply. In addition, in so doing unexpected results are not achieved. Essentially, Lau teaches a multi-channel repeater but is silent to the exact type of protocol or protocols that should be used as infrastructure backbone, although they teach that a high-data-rate interface is desirable. Heinonen teaches a multiprotocol repeater comprising Bluetooth<sup>TM</sup> and IEEE 802.11 a, b and g. Both Lau and Heinonen teach extending wireless LAN coverage, and one would have been motivated to combine the references for the reasons stated above.

### ***Response to Arguments***

5. Applicant's arguments with respect to claims 45-72 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DONALD L. MILLS whose telephone number is (571)272-3094. The examiner can normally be reached on 9:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Donald L Mills/  
Primary Examiner, Art Unit 2616  
July 7, 2008